OhioEdison®
A FirstEnergy Company

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Akron, Ohio 44308-1812

February 11, 2014

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Environmental & Natural Resources Division
DJ#90-5-2-1-06894
U.S. Department of Justice
601 D Street, NW
Washington, District of Columbia 20044-7611

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Office of Enforcement & Compliance Assurance
U.S. Environmental Protection Agency
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Washington, DC 20460

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U.S. EPA Region V
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Department Head
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Office of the Attorney General
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Chief, Environmental Protection Bureau
New York State Attorney General's Office
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Bureau Chief, Air Bureau
State of Connecticut
Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106

Administrator, Air & Environmental Quality
Compliance & Enforcement
P.O. Box 422
401 East State Street, Floor 4
Trenton, New Jersey 08625

Gentlemen and Ladies:

Re: Submittal of the Seventeenth Semiannual Progress Report Pursuant Paragraph 141 of the Consent Decree, Entered in Civil Action No. C2-99-1181

Ohio Edison Company (OE) submits the following semiannual progress report for the period July 1, 2013 through December 31, 2013, as required by paragraph 141 of the Consent Decree (CD).

Appendix (B)(I)(A) — Installation of NO_x and SO_2 Equipment

Project	Construction Schedule	Date of Contract Execution	Major Component Delivery	Estimated Percentage Complete	Estimated Construction Completion	Date of Final Installation	Acceptance Test
SA 1–2, 4–7 Low-NO_x Burners				100 %		In-service prior to Consent Decree	
SA 1–2, 4, 6–7 Overfired Air				100 %		In-service prior to Consent Decree	
SA 1–5 Combustion Optimization		4/14/05	All Equipment Received	100%		11/2/05	N/A
SA 1 SNCR		N/A – FE General Contractor	All Equipment Received	100%		6/16/06	N/A
SA 2 SNCR				100%		In-service prior to Consent Decree	
SA 3 SNCR		N/A – FE General Contractor	All Equipment Received	100%		11/07/05	N/A
SA 4 SNCR		N/A – FE General Contractor	All Equipment Received	100%		5/19/06	N/A
SA 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		4/28/06	N/A
SA 6 SNCR		N/A – FE General Contractor	All Equipment Received	100%		6/3/05	N/A
SA 7 SNCR				100%		In-service prior to Consent Decree	
SA 6 SCR		January 2005	All Equipment Received	100%		04/20/10	N/A
SA 7 SCR		January 2005	All Equipment Received	100%		5/31/10	N/A
SA 1-4 SO_2 Removal System		8/26/05	All Equipment Received	100%		05/31/10	N/A
SA 5 SO_2 Removal System		8/26/05	All Equipment Received	100%		06/30/10	Completed 11/12/10
SA 6 & 7 SO_2 Removal System		8/26/05	All Equipment Received	100%		6/30/10	Completed 11/12/10

Project	Construction Schedule	Date of Contract Execution	Major Component Delivery	Estimated Percentage Complete	Estimated Construction Completion	Date of Final Installation	Acceptance Test
MN 1 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		12/3/05	Completed 6/1/06
MN 2 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		11/8/06	Completed 6/19/07
MN 3 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		11/10/07	Completed 3/13/08
EL 5 Low-NO_x Burners, Overfired Air				100%		In-service prior to Consent Decree	
EL 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		2/26/07	N/A
Burger 4 SNCR		N/A – FE General Contractor	All Equipment Received	100%		11/24/08	N/A
Burger 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		12/08/08	N/A
Burger 4	Unit permanently shutdown on 12/31/10	NA	NA	NA	N/A	N/A	N/A
Burger 5	Unit permanently shutdown on 12/31/10	NA	NA	NA	N/A	N/A	N/A

Appendix (B)(I)(B) — 30-Day Rolling Average Emission Rates for NO_x and SO_2

CD Paragraph 54, 56–59:

1. The Sammis Unit 1 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 2 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 3 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 4 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 5 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

The Sammis Unit 6 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

The Sammis Unit 7 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

2. Sample calculations were previously submitted for Sammis Unit 1.

   Sample calculations were previously submitted for Sammis Unit 2.

   Sample calculations were previously submitted for Sammis Unit 3.

   Sample calculations were previously submitted for Sammis Unit 4.

   Sample calculations were previously submitted for Sammis Unit 5.

   Sample calculations were previously submitted for Sammis Unit 6.

   Sample calculations were previously submitted for Sammis Unit 7.

3. There were no deviations of the Sammis Unit 1 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 2 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 3 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 4 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 5 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 6 NO_x 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 7 NO_x 30-Day Rolling Average Emission Rate during the period.

4. Sammis Units 1, 2, 3, 4, 5, 6 & 7 Startup and Shutdown.

Unit	Date and Time Fuel Combusted	Date and Time Synchronized	Date and Time Fire Extinguished	Fifth and Subsequent Cold Startup Period Within 30-Day Period
SA-1			08/30/2013 2340	
SA-1	09/14/2013 0707	09/14/2013 2336	10/25/2013 2103	
SA-1	10/27/2013 2116	10/28/2013 0559	11/02/2013 0055	
SA-1	11/04/2013 2238	11/05/2013 0458	12/27/2013 0029	
SA-1	12/29/2013 0105		12/29/2013 0746	
SA-1	12/31/2013 1450			
SA-2			07/05/2013 0840	
SA-2	07/09/2013 0057	07/09/2013 1253	07/14/2013 1937	
SA-2	07/16/2013 1525	07/16/2013 2149	07/17/2013 0854	
SA-2	07/18/2013 1624	07/18/2013 2146	07/26/2013 2214	
SA-2	07/29/2013 0613	07/29/2013 1146	07/30/2013 0219	
SA-2	07/30/2013 1430		07/30/2013 1608	
SA-2	07/31/2013 1958	08/01/2013 0446	08/01/2013 1338	
SA-2	08/05/2013 0325	08/05/2013 1038	08/29/2013 1423	
SA-2	09/08/2013 1117	09/09/2013 0113	09/17/2013 1004	
SA-2	09/22/2013 1406	09/23/2013 0141	10/11/2013 0843	
SA-2	10/14/2013 0725	10/14/2013 1420	11/03/2013 2046	
SA-2	11/04/2013 1318	11/04/2013 1805	12/17/2013 0852	
SA-2	12/18/2013 0134	12/18/2013 0859		
SA-3			08/06/2013 1329	
SA-3	08/06/2013 1448	08/06/2013 1606	08/31/2013 0028	
SA-3	09/12/2013 1113	09/13/2013 0243	09/13/2013 0626	
SA-3	09/13/2013 2021	09/14/2013 0106	09/25/2013 0756	
SA-3	09/25/2013 1601	09/25/2013 1940		
SA-4	07/04/2013 0759	07/04/2013 2159	07/11/2013 1605	
SA-4	07/12/2013 0919	07/12/2013 1432	08/07/2013 2304	
SA-4	08/11/2013 1315	08/12/2013 0100	08/18/2013 1705	
SA-4	08/21/2013 1833	08/22/2013 0247	08/26/2013 1146	
SA-4	08/27/2013 1828	08/28/2013 0043	08/31/2013 0736	
SA-4	09/09/2013 0253	09/09/2013 1443	10/01/2013 1706	
SA-4	10/06/2013 1439	10/06/2013 2128	10/23/2013 0209	
SA-4	10/25/2013 1041	10/25/2013 1922	10/28/2013 1023	
SA-4	10/29/2013 1219	10/29/2013 1939	10/30/2013 0718	
SA-4	10/31/2013 0750	10/31/2013 1645	12/28/2013 0000	
SA-4	12/28/2013 0623	12/28/2013 1220		

CD Paragraph 81, 86, 88 & 89:

1. The Sammis Unit 1 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 2 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 3 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 4 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 5 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 6 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

   The Sammis Unit 7 SO_2 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2013 through December 31, 2013.

2. Sample calculations were previously submitted for Sammis Unit 1.

   Sample calculations were previously submitted for Sammis Unit 2.

   Sample calculations were previously submitted for Sammis Unit 3.

   Sample calculations were previously submitted for Sammis Unit 4.

   Sample calculations were previously submitted for Sammis Unit 5.

   Sample calculations were previously submitted for Sammis Unit 6.

   Sample calculations were previously submitted for Sammis Unit 7.

3. There were no deviations of the Sammis Unit 1 SO_2 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 2 SO_2 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 3 SO_2 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 4 SO_2 30-Day Rolling Average Emission Rate during the period.

   There were no deviations of the Sammis Unit 5 SO_2 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 6 SO_2 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 7 SO_2 30-Day Rolling Average Emission Rate during the period.

4. Sammis Unit 1 through 7 Startup and Shutdown. See pages 5 and 6.

Appendix (B)(I)(C) — PM Emission Rates

CD Paragraph 112: OE complied with the Unit 6 and Unit 7 particulate matter (PM) emissions rate testing. The annual PM test was conducted on September 5, 2013 with a flue A PM test result of a 0.011 lb/MMBtu PM rate and a flue B PM test result of a 0.011 lb/MMBtu PM rate. The result of the PM test was less than the PM emissions rate limit of 0.030 lb/MMBtu.

Appendix (B)(I)(D) — Plant-Wide Annual Cap and Monthly Cap

NO_x

CD Paragraph 69: OE complied with the Plant-Wide Annual Cap for the Sammis plant for NO_x, which applies collectively to all units within the Sammis plant for the period January 1, 2013 through December 31, 2013. The Plant-Wide Annual Cap was 11,863 tons, and the actual emissions for this period were 8,705 tons.

CD Paragraph 70: Compliance with the Plant-Wide Annual Cap for the period January 1, 2013 through December 31, 2013 was determined by calculating actual annual emissions during all periods of Sammis plant operation using CEMS.

SO_2

CD Paragraph 93: OE complied with the Plant-Wide Annual Cap for the Sammis plant for SO_2, which applies collectively to all units within the Sammis plant for the period January 1, 2013 through December 31, 2013. The Plant-Wide Annual Cap was 29,900 tons, and the actual emissions for this period were 8,496 tons.

CD Paragraph 94: OE complied with the Monthly Cap for Sammis 1 through 5 for SO_2, which applies for May 2013 through September 2013. The Monthly Cap was 2,533 tons for May 2013, July 2013, and August 2013. The Monthly Cap was 2,451 tons for June 2013 and September 2013. The Sammis 1 through 5 actual Monthly emissions for May 1, 2013 to May 31, 2013 were 238 tons. The Sammis 1 through 5 actual Monthly emissions for June 1, 2013 to June 30, 2013 were 578 tons. The Sammis 1 through 5 actual Monthly emissions for July 1, 2013 to July 31, 2013 were 621 tons. The Sammis 1 through 5 actual Monthly emissions for August 1, 2013 to August 31, 2013 were 656 tons. The Sammis 1 through 5 actual Monthly emissions for September 1, 2013 to September 30, 2013 were 396 tons.

CD Paragraph 95: Compliance with the Plant-Wide Annual Cap for the period January 1, 2013 through December 31, 2013 was determined by calculating actual annual emissions during all periods of Sammis plant operation using CEMS.

Appendix (B)(I)(E) — Additional Reductions

CD Paragraph 62: This obligation has been eliminated since Eastlake Unit 5 was permanently retired from service and physically disabled in 2012.

CD Paragraph 65: This obligation has been eliminated since R. E. Burger Plant Units 4 and 5 were permanently retired from service and physically disabled in 2010.

CD Paragraph 91: OE complied with the requirement to demonstrate the Mansfield Units 1, 2, and 3 FGD Removal Efficiency. The Removal Efficiency requirement for each unit was 95 percent, and the actual Removal Efficiency was 99, 99, and 96 percent, respectively, for Units 1, 2, and 3. Compliance with the Removal Efficiency requirement for the period January 1, 2013 through December 31, 2013 was determined by CEMS data and coal sampling conducted on May 7, 2013 for Unit 1; May 8, 2013 for Unit 2; and May 9, 2013 for Unit 3. See attached summaries.

CD Paragraph 92: OE complied with the 12,000 tons of additional Mansfield Plant SO_2 Reductions for Mansfield Units 1, 2, and 3 for the period January 1, 2013 through December 31, 2013. The Additional Mansfield SO_2 Reductions were 19,564 tons.

Appendix (B)(I)(F) — Interim Reductions for NO_x and SO_2

CD Paragraph 72: OE achieved 2,483 tons of the 2,483 tons of Interim NO_x Emission Reductions required by CD Paragraph 72 during the period July 1, 2005 and December 31, 2008.

CD Paragraph 97: OE achieved 35,000 tons of the 35,000 tons SO_2 Interim Emission Reductions required by CD Paragraph 97 during the period January 1, 2006 and December 31, 2008.

CD Paragraph 98: OE achieved 24,600 tons of the 24,600 tons SO_2 Interim Emission Reductions required by CD Paragraph 98 during the period January 1, 2007 and December 31, 2008.

Appendix (B)(I)(G) — Surrender of Restricted SO_2 Allowances

Nothing to report.

Appendix (B)(I)(H) — Generation of Super-Compliant Allowances

Annual NO_x – Super-Compliant Allowances
CD Paragraph 76: OE generated 1,353 Super-Compliant NO_x allowances between January 1, 2013 and December 31, 2013 from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

> The Sammis Unit 1 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2013 Sammis 1 NO_x rate was 0.213 lb/MMBtu. Sammis Unit 1 NO_x rate reduction was 0.037 lb/MMBtu multiplied by the 2013 Annual Heat Input of 8,761,622 MMBtu to calculate 162 Sammis 1 Super-Compliant NO_x tons.
>
> The Sammis Unit 2 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2013 Sammis 2 NO_x rate was 0.221 lb/MMBtu. Sammis Unit 2 NO_x rate reduction was 0.029 lb/MMBtu multiplied by the 2013 Annual Heat Input of 8,878,855 MMBtu to calculate 129 Sammis 2 Super-Compliant NO_x tons.

The Sammis Unit 3 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2013 Sammis 3 NO_x rate was 0.212 lb/MMBtu. Sammis Unit 3 NO_x rate reduction was 0.038 lb/MMBtu multiplied by the 2013 Annual Heat Input of 9,853,058 MMBtu to calculate 187 Sammis 3 Super-Compliant NO_x tons.

The Sammis Unit 4 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2013 Sammis 4 NO_x rate was 0.219 lb/MMBtu. Sammis Unit 4 NO_x rate reduction was 0.031 lb/MMBtu multiplied by the 2013 Annual Heat Input of 9,050,767 MMBtu to calculate 140 Sammis 4 Super-Compliant NO_x tons.

The Sammis Unit 5 NO_x Consent Decree rate limit is 0.290 lb/MMBtu. The 2013 Sammis 5 NO_x rate was 0.264 lb/MMBtu. Sammis Unit 5 NO_x rate reduction was 0.026 lb/MMBtu multiplied by the 2013 Annual Heat Input of 13,615,556 MMBtu to calculate 177 Sammis 5 Super-Compliant NO_x tons.

The Sammis Unit 6 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. The 2013 Sammis 6 NO_x rate was 0.084 lb/MMBtu. Sammis Unit 6 NO_x rate reduction was 0.016 lb/MMBtu multiplied by the 2013 Annual Heat Input of 37,377,184 MMBtu to calculate 299 Sammis 6 Super-Compliant NO_x tons.

The Sammis Unit 7 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. The 2013 Sammis 7 NO_x rate was 0.083 lb/MMBtu. Sammis Unit 7 NO_x rate reduction was 0.017 lb/MMBtu multiplied by the 2013 Annual Heat Input of 30,467,758 MMBtu to calculate 259 Super compliant NO_x tons.

Ozone Season NO_x – Super-Compliant Allowances

CD Paragraph 76: OE generated 522 Super-Compliant NO_x allowances during the 2013 ozone season from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

The Sammis Unit 1 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2013 ozone season, the Sammis 1 NO_x rate was 0.220 lb/MMBtu. Sammis Unit 1 NO_x rate reduction was 0.030lb/MMBtu multiplied by the 2013 ozone season Heat Input of 3,920,930 MMBtu to calculate 59 Sammis 1 Super-Compliant NO_x tons.

The Sammis Unit 2 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2013 ozone season, the Sammis 2 NO_x rate was 0.219 lb/MMBtu. Sammis Unit 2 NO_x rate reduction was 0.031 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 3,330,499 MMBtu to calculate 52 Sammis 2 Super-Compliant NO_x tons.

The Sammis Unit 3 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2013 ozone season, the Sammis 3 NO_x rate was 0.217 lb/MMBtu. Sammis Unit 3 NO_x rate reduction was 0.033 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 4,056,048 MMBtu to calculate 67 Sammis 3 Super-Compliant NO_x tons.

The Sammis Unit 4 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2013 ozone season, the Sammis 4 NO_x rate was 0.222 lb/MMBtu. Sammis Unit 4 NO_x rate reduction was 0.028 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 3,519,579 MMBtu to calculate 49 Sammis 4 Super-Compliant NO_x tons.

The Sammis Unit 5 NO_x Consent Decree rate limit is 0.290 lb/MMBtu. During the 2013 ozone season, the Sammis 5 NO_x rate was 0.264 lb/MMBtu. Sammis Unit 5 NO_x rate reduction was 0.026 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 6,151,061 MMBtu to calculate 80 Sammis 5 Super-Compliant NO_x tons.

The Sammis Unit 6 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. During the 2013 ozone season, the Sammis 6 NO_x rate was 0.081 lb/MMBtu. Sammis Unit 6 NO_x rate reduction was 0.019 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 16,886,777 MMBtu to calculate 160 Sammis 6 Super-Compliant NO_x tons.

The Sammis Unit 7 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. During the 2013 ozone season, the Sammis 7 NO_x rate was 0.085 lb/MMBtu. Sammis Unit 7 NO_x rate reduction was 0.015 lb/MMBtu multiplied by the 2013 ozone season Heat Input of 7,512,844 MMBtu to calculate ~~xx~~ 56 Super compliant NO_x tons.

Title IV (SO_2)

CD Paragraph 106: OE generated 17,378 Super-Compliant SO_2 allowances between January 1, 2013 and December 31, 2013 from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

The Sammis Unit 1 SO_2 Consent Decree rate limit is 1.10 lb/MMBtu. The 2013 Sammis 1 SO_2 rate was 0.247 lb/MMBtu. Sammis Unit 1 SO_2 rate reduction was 0.853 lb/MMBtu multiplied by the 2013 Annual Heat Input of 8,761,662 MMBtu to calculate 3737 Sammis 1 Super-Compliant SO_2 tons.

The Sammis Unit 2 SO_2 Consent Decree rate limit is 1.10 lb/MMBtu. The 2013 Sammis 2 SO_2 rate was 0.247 lb/MMBtu. Sammis Unit 2 SO_2 rate reduction was 0.853 lb/MMBtu multiplied by the 2013 Annual Heat Input of 8,878,855 MMBtu to calculate 3787 Sammis 2 Super-Compliant SO_2 tons.

The Sammis Unit 3 SO_2 Consent Decree rate limit is 1.10 lb/MMBtu. The 2013 Sammis 3 SO_2 rate was 0.247 lb/MMBtu. Sammis Unit 3 SO_2 rate reduction was 0.853 lb/MMBtu multiplied by the 2013 Annual Heat Input of 9,853,058 MMBtu to calculate 4202 Sammis 3 Super-Compliant SO_2 tons.

The Sammis Unit 4 SO_2 Consent Decree rate limit is 1.10 lb/MMBtu. The 2013 Sammis 4 SO_2 rate was 0.247 lb/MMBtu. Sammis Unit 4 SO_2 rate reduction was 0.853 lb/MMBtu multiplied by the 2013 Annual Heat Input of 9,050,767 MMBtu to calculate 3860 Sammis 4 Super-Compliant SO_2 tons.

The Sammis Unit 5 SO_2 Consent Decree rate limit is 0.130 lb/MMBtu. The 2013 Sammis 5 SO_2 rate was 0.086 lb/MMBtu. Sammis Unit 5 SO_2 rate reduction was 0.044 lb/MMBtu multiplied by the 2013 Annual Heat Input of 13,615,566 MMBtu to calculate 300 Sammis 5 Super-Compliant SO_2 tons.

The Sammis Unit 6 SO_2 Consent Decree rate limit is 0.130 lb/MMBtu. The 2013 Sammis 6 SO_2 rate was 0.086 lb/MMBtu. Sammis Unit 6 SO_2 rate reduction was 0.044 lb/MMBtu

multiplied by the 2013 Annual Heat Input of 37,377,184 MMBtu to calculate 822 Sammis 6 Super-Compliant SO_2 tons.

The Sammis Unit 7 SO_2 Consent Decree rate limit is 0.130 lb/MMBtu. The 2013 Sammis 7 SO_2 rate was 0.086 lb/MMBtu. Sammis Unit 7 SO_2 rate reduction was 0.044 lb/MMBtu multiplied by the 2013 Annual Heat Input of 30,467,758 MMBtu to calculate 670 Super compliant SO_2 tons.

Appendix (B)(I)(I) — NO_x System-Wide Annual Emission Rate

Nothing to report.

Appendix (B)(I)(J) — Environmentally Beneficial Projects

1. Cash Contributions

Date of Payment	Recipient	Amount Paid
Nothing to report		

2. Renewable Energy Development Projects

Date of Execution	Megawatts	Location	Commencement of Operation	Description
3/21/2006	16	Cambria County, PA	6/29/2007	Wind turbine purchase power agreement for 23-year term entered into by FES, an affiliate of OE (agreement previously submitted)
7/08/2008	62.5	Adams County, PA	August 31, 2009 (estimated)	Wind turbine purchase power agreement for 22-year term entered into by FES, an affiliate of OE (agreement previously submitted)
1/09/2009	16	Cambria County, PA	August 12, 2009	Wind turbine purchase power agreement for 23-year term entered into by FES, an affiliate of OE (agreement previously submitted)

Appendix (B)(II) — Deviation Reports

Nothing to report.

Appendix (B)(III) – Ohio Edison Submissions

Date Submitted	Plans/Submissions	Pending Review and Approval
12/22/11	EL5 NOx Substitution Compliance Plan	Obligation eliminated by EL5 being permanently retired from service and physically disabled in 2012

Certification

"This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manages the system, or the persons(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States."

Sincerely,

Raymond L. Evans
Vice President, Environmental

Attachments
By UPS Ground

Sammis 1-7 NOx 30-Day Rolling Average

July 1, 2013 through December 31, 2013

Date	Boiler-1 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-2 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-3 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-4 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-5 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-6 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)	Boiler-7 NOx 30-day Rolling Average Emission Rate (lb/mmBtu)
07/01/13	0.214	0.215	0.219	0.227	0.263	0.080	0.084
07/02/13	0.214	0.215	0.220	0.227	0.262	0.080	0.084
07/03/13	0.215	0.215	0.221	0.227	0.261	0.080	0.084
07/04/13	0.216	0.215	0.220	0.227	0.261	0.079	0.084
07/05/13	0.217	0.215	0.220	0.226	0.261	0.078	0.084
07/06/13	0.217	0.215	0.220	0.226	0.262	0.078	0.084
07/07/13	0.216	0.215	0.220	0.225	0.263	0.078	0.084
07/08/13	0.216	0.215	0.219	0.226	0.264	0.078	0.084
07/09/13	0.216	0.215	0.219	0.226	0.264	0.077	0.084
07/10/13	0.217	0.215	0.219	0.227	0.265	0.077	0.084
07/11/13	0.220	0.214	0.220	0.227	0.264	0.078	0.084
07/12/13	0.222	0.214	0.219	0.227	0.262	0.077	0.084
07/13/13	0.223	0.214	0.219	0.230	0.262	0.077	0.084
07/14/13	0.224	0.214	0.219	0.230	0.263	0.077	0.084
07/15/13	0.225	0.214	0.219	0.230	0.264	0.077	0.084
07/16/13	0.226	0.214	0.219	0.229	0.265	0.077	0.084
07/17/13	0.226	0.214	0.219	0.228	0.266	0.077	0.084
07/18/13	0.227	0.214	0.220	0.228	0.268	0.077	0.084
07/19/13	0.227	0.213	0.220	0.228	0.271	0.077	0.084
07/20/13	0.228	0.212	0.221	0.227	0.272	0.077	0.084
07/21/13	0.229	0.213	0.221	0.227	0.271	0.077	0.084
07/22/13	0.229	0.213	0.222	0.227	0.271	0.076	0.084
07/23/13	0.230	0.213	0.224	0.228	0.271	0.076	0.084
07/24/13	0.230	0.214	0.225	0.228	0.270	0.076	0.084
07/25/13	0.231	0.214	0.226	0.228	0.268	0.076	0.084
07/26/13	0.233	0.213	0.227	0.227	0.267	0.076	0.084
07/27/13	0.231	0.213	0.226	0.226	0.268	0.076	0.084
07/28/13	0.230	0.213	0.224	0.226	0.266	0.076	0.084
07/29/13	0.231	0.213	0.225	0.227	0.267	0.076	0.084
07/30/13	0.233	0.213	0.225	0.229	0.270	0.076	0.084

07/31/13	0.233	0.213	0.225	0.229	0.271	0.076	0.084
08/01/13	0.234	0.213	0.224	0.229	0.272	0.076	0.084
08/02/13	0.233	0.213	0.224	0.229	0.272	0.076	0.084
08/03/13	0.232	0.213	0.225	0.228	0.270	0.076	0.084
08/04/13	0.230	0.213	0.224	0.227	0.268	0.076	0.084
08/05/13	0.230	0.213	0.225	0.227	0.267	0.076	0.084
08/06/13	0.231	0.213	0.224	0.229	0.265	0.078	0.084
08/07/13	0.232	0.212	0.225	0.228	0.265	0.078	0.084
08/08/13	0.233	0.212	0.225	0.228	0.265	0.078	0.084
08/09/13	0.233	0.211	0.226	0.228	0.265	0.079	0.084
08/10/13	0.231	0.212	0.225	0.228	0.265	0.079	0.084
08/11/13	0.229	0.212	0.225	0.228	0.265	0.080	0.084
08/12/13	0.228	0.213	0.225	0.229	0.265	0.080	0.084
08/13/13	0.228	0.213	0.225	0.228	0.265	0.080	0.084
08/14/13	0.228	0.213	0.226	0.227	0.264	0.081	0.084
08/15/13	0.228	0.214	0.226	0.227	0.266	0.081	0.084
08/16/13	0.228	0.214	0.227	0.223	0.267	0.082	0.084
08/17/13	0.228	0.216	0.227	0.221	0.267	0.082	0.084
08/18/13	0.227	0.218	0.225	0.221	0.266	0.083	0.084
08/19/13	0.227	0.218	0.225	0.221	0.266	0.083	0.084
08/20/13	0.227	0.219	0.224	0.221	0.265	0.083	0.084
08/21/13	0.228	0.220	0.224	0.221	0.265	0.083	0.084
08/22/13	0.227	0.221	0.223	0.221	0.265	0.083	0.084
08/23/13	0.227	0.222	0.222	0.220	0.266	0.084	0.085
08/24/13	0.226	0.222	0.220	0.219	0.265	0.084	0.084
08/25/13	0.224	0.222	0.219	0.218	0.264	0.084	0.084
08/26/13	0.226	0.221	0.221	0.218	0.266	0.084	0.084
08/27/13	0.228	0.221	0.222	0.218	0.266	0.085	0.084
08/28/13	0.226	0.222	0.221	0.218	0.267	0.085	0.083
08/29/13	0.226	0.222	0.220	0.217	0.268	0.085	0.083
08/30/13	0.226	0.222	0.220	0.217	0.268	0.086	0.083
08/31/13	0.226	0.222	0.220	0.217	0.267	0.086	0.083
09/01/13	0.226	0.222	0.220	0.217	0.264	0.086	0.082
09/02/13	0.226	0.222	0.220	0.217	0.264	0.086	0.082

09/03/13	0.226	0.222	0.220	0.217	0.264	0.086	0.082
09/04/13	0.226	0.222	0.220	0.217	0.263	0.086	0.082
09/05/13	0.226	0.222	0.220	0.217	0.263	0.084	0.082
09/06/13	0.226	0.222	0.220	0.217	0.265	0.083	0.081
09/07/13	0.226	0.222	0.220	0.217	0.264	0.083	0.080
09/08/13	0.226	0.222	0.220	0.217	0.261	0.082	0.080
09/09/13	0.226	0.223	0.220	0.217	0.263	0.082	0.080
09/10/13	0.226	0.223	0.220	0.215	0.265	0.081	0.080
09/11/13	0.226	0.224	0.220	0.213	0.266	0.081	0.080
09/12/13	0.226	0.223	0.220	0.211	0.268	0.081	0.080
09/13/13	0.226	0.223	0.220	0.210	0.271	0.081	0.080
09/14/13	0.226	0.224	0.219	0.210	0.267	0.080	0.080
09/15/13	0.224	0.224	0.219	0.211	0.264	0.080	0.080
09/16/13	0.223	0.225	0.218	0.213	0.265	0.080	0.080
09/17/13	0.225	0.225	0.218	0.212	0.267	0.080	0.081
09/18/13	0.226	0.225	0.217	0.211	0.266	0.080	0.081
09/19/13	0.225	0.225	0.218	0.210	0.265	0.080	0.080
09/20/13	0.224	0.225	0.218	0.210	0.265	0.080	0.080
09/21/13	0.223	0.225	0.217	0.209	0.261	0.080	0.080
09/22/13	0.221	0.225	0.215	0.211	0.257	0.080	0.080
09/23/13	0.220	0.225	0.214	0.210	0.260	0.080	0.080
09/24/13	0.219	0.225	0.214	0.209	0.262	0.080	0.081
09/25/13	0.219	0.226	0.214	0.209	0.261	0.080	0.079
09/26/13	0.219	0.226	0.213	0.209	0.260	0.080	0.080
09/27/13	0.218	0.227	0.213	0.209	0.260	0.080	0.080
09/28/13	0.216	0.227	0.212	0.209	0.259	0.080	0.081
09/29/13	0.215	0.225	0.210	0.210	0.256	0.080	0.081
09/30/13	0.214	0.224	0.208	0.210	0.259	0.081	0.081
10/01/13	0.213	0.222	0.207	0.210	0.262	0.081	0.081
10/02/13	0.212	0.221	0.207	0.210	0.263	0.081	0.081
10/03/13	0.211	0.222	0.207	0.210	0.263	0.081	0.082
10/04/13	0.210	0.222	0.207	0.210	0.264	0.081	0.082
10/05/13	0.209	0.223	0.206	0.210	0.262	0.082	0.082
10/06/13	0.207	0.222	0.203	0.210	0.259	0.082	0.082

10/07/13	0.206	0.222	0.204	0.209	0.263	0.082	0.082
10/08/13	0.206	0.221	0.204	0.209	0.266	0.082	0.083
10/09/13	0.206	0.221	0.204	0.209	0.264	0.082	0.083
10/10/13	0.206	0.221	0.205	0.210	0.261	0.082	0.083
10/11/13	0.204	0.221	0.205	0.211	0.258	0.082	0.082
10/12/13	0.203	0.221	0.205	0.211	0.255	0.082	0.083
10/13/13	0.201	0.221	0.206	0.211	0.253	0.082	0.083
10/14/13	0.200	0.221	0.206	0.212	0.255	0.082	0.083
10/15/13	0.200	0.222	0.207	0.213	0.258	0.082	0.083
10/16/13	0.201	0.223	0.207	0.213	0.258	0.082	0.083
10/17/13	0.200	0.224	0.207	0.214	0.258	0.081	0.083
10/18/13	0.200	0.225	0.208	0.215	0.258	0.081	0.083
10/19/13	0.200	0.225	0.208	0.215	0.258	0.081	0.082
10/20/13	0.200	0.225	0.208	0.215	0.258	0.080	0.082
10/21/13	0.201	0.225	0.209	0.214	0.256	0.080	0.082
10/22/13	0.201	0.227	0.210	0.214	0.257	0.080	0.082
10/23/13	0.201	0.227	0.211	0.214	0.258	0.080	0.082
10/24/13	0.201	0.227	0.211	0.214	0.257	0.080	0.082
10/25/13	0,200	0.227	0.211	0.214	0.261	0.083	0.082
10/26/13	0.200	0.227	0.211	0.214	0.263	0.083	0.082
10/27/13	0.200	0.227	0.210	0.213	0.261	0.082	0.081
10/28/13	0.201	0.228	0.211	0.213	0.262	0.082	0.081
10/29/13	0.201	0.228	0.212	0.213	0.261	0.082	0.081
10/30/13	0.202	0.227	0.214	0.213	0.264	0.082	0.081
10/31/13	0.203	0.226	0.214	0.213	0.268	0.081	0.080
11/01/13	0.202	0.226	0.215	0.213	0.269	0.081	0.080
11/02/13	0.202	0.226	0.214	0.213	0.268	0.081	0.080
11/03/13	0.202	0.227	0.215	0.213	0.264	0.081	0.080
11/04/13	0.202	0.227	0.214	0.211	0.265	0.080	0.080
11/05/13	0.202	0.228	0.215	0.211	0.265	0.080	0.080
11/06/13	0.202	0.229	0.215	0.210	0.265	0.080	0.080
11/07/13	0.202	0.229	0.216	0.210	0.266	0.081	0.080
11/08/13	0.202	0.230	0.216	0.209	0.268	0.081	0.080
11/09/13	0.203	0.230	0.216	0.209	0.268	0.081	0.080

11/10/13	0.204	0.230	0.215	0.208	0.265	0.081	0.080
11/11/13	0.205	0.230	0.214	0.208	0.266	0.081	0.080
11/12/13	0.206	0.229	0.213	0.207	0.267	0.081	0.080
11/13/13	0.206	0.229	0.213	0.208	0.267	0.081	0.080
11/14/13	0.206	0.229	0.214	0.210	0.267	0.082	0.080
11/15/13	0.207	0.228	0.214	0.212	0.268	0.082	0.080
11/16/13	0.208	0.227	0.213	0.214	0.268	0.082	0.080
11/17/13	0.208	0.226	0.212	0.216	0.267	0.083	0.080
11/18/13	0.209	0.225	0.213	0.218	0.266	0.083	0.079
11/19/13	0.210	0.224	0.213	0.219	0.265	0.084	0.079
11/20/13	0.209	0.224	0.212	0.219	0.265	0.084	0.079
11/21/13	0.209	0.223	0.211	0.219	0.264	0.084	0.079
11/22/13	0.209	0.222	0.212	0.219	0.263	0.084	0.078
11/23/13	0.209	0.222	0.212	0.219	0.263	0.087	0.078
11/24/13	0.209	0.222	0.213	0.219	0.263	0.088	0.078
11/25/13	0.208	0.222	0.213	0.220	0.263	0.088	0.078
11/26/13	0.208	0.224	0.214	0.219	0.262	0.088	0.078
11/27/13	0.207	0.224	0.214	0.220	0.260	0.085	0.078
11/28/13	0.208	0.222	0.214	0.220	0.262	0.085	0.078
11/29/13	0.209	0.222	0.213	0.221	0.262	0.085	0.078
11/30/13	0.208	0.223	0.214	0.221	0.259	0.085	0.078
12/01/13	0.207	0.223	0.214	0.222	0.260	0.084	0.078
12/02/13	0.207	0.225	0.214	0.222	0.258	0.083	0.080
12/03/13	0.206	0.226	0.213	0.223	0.255	0.083	0.080
12/04/13	0.206	0.225	0.214	0.224	0.255	0.083	0.079
12/05/13	0.206	0.226	0.215	0.225	0.257	0.083	0.079
12/06/13	0.206	0.225	0.214	0.224	0.261	0.083	0.079
12/07/13	0.205	0.225	0.211	0.224	0.261	0.083	0.079
12/08/13	0.204	0.224	0.209	0.226	0.260	0.083	0.079
12/09/13	0.204	0.224	0.209	0.227	0.259	0.083	0.079
12/10/13	0.203	0.225	0.210	0.228	0.258	0.082	0.079
12/11/13	0.202	0.225	0.210	0.228	0.259	0.082	0.079
12/12/13	0.202	0.226	0.211	0.229	0.259	0.082	0.079
12/13/13	0.201	0.226	0.212	0.229	0.261	0.082	0.079

12/14/13	0.201	0.227	0.211	0.227	0.263	0.082	0.079
12/15/13	0.200	0.226	0.211	0.226	0.263	0.082	0.078
12/16/13	0.200	0.227	0.212	0.225	0.263	0.082	0.078
12/17/13	0.201	0.227	0.212	0.223	0.263	0.082	0.078
12/18/13	0.200	0.227	0.212	0.222	0.263	0.082	0.078
12/19/13	0.199	0.227	0.212	0.221	0.263	0.082	0.078
12/20/13	0.199	0.227	0.213	0.222	0.263	0.081	0.078
12/21/13	0.199	0.228	0.212	0.222	0.263	0.081	0.078
12/22/13	0.199	0.228	0.212	0.222	0.263	0.081	0.078
12/23/13	0.200	0.229	0.212	0.223	0.264	0.078	0.078
12/24/13	0.200	0.231	0.212	0.224	0.267	0.078	0.078
12/25/13	0.200	0.232	0.211	0.224	0.267	0.079	0.078
12/26/13	0.199	0.231	0.211	0.223	0.268	0.079	0.078
12/27/13	0.199	0.230	0.212	0.222	0.267	0.079	0.078
12/28/13	0.199	0.230	0.212	0.222	0.268	0.079	0.078
12/29/13	0.199	0.231	0.211	0.220	0.268	0.079	0.078
12/30/13	0.199	0.232	0.211	0.220	0.271	0.079	0.078
12/31/13	0.199	0.232797358	0.211617187	0.220082605	0.271136869	0.079341979	0.077965397

Sammis Flues A, B, and C SO2 30-Day Rolling Average July 1, 2013 through December 31, 2013			
Date	Flue A SO2 30-day Rolling Average Emission Rate (lb/mmBtu)	Flue B SO2 30-day Rolling Average Emission Rate (lb/mmBtu)	Flue C SO2 30-day Rolling Average Emission Rate (lb/mmBtu)
07/01/10	0.091	0.088	0.292
07/02/10	0.091	0.089	0.298
07/03/10	0.092	0.090	0.303
07/04/10	0.092	0.090	0.308
07/05/10	0.092	0.090	0.314
07/06/10	0.092	0.090	0.320
07/07/10	0.091	0.090	0.326
07/08/10	0.091	0.089	0.333
07/09/10	0.091	0.089	0.341
07/10/10	0.091	0.088	0.351
07/11/10	0.090	0.086	0.357
07/12/10	0.089	0.085	0.354
07/13/10	0.088	0.085	0.355
07/14/10	0.088	0.084	0.358
07/15/10	0.088	0.084	0.359
07/16/10	0.088	0.084	0.355
07/17/10	0.087	0.084	0.350
07/18/10	0.087	0.084	0.346
07/19/10	0.086	0.084	0.344
07/20/10	0.086	0.084	0.343
07/21/10	0.086	0.083	0.344
07/22/10	0.086	0.083	0.345
07/23/10	0.086	0.082	0.347
07/24/10	0.086	0.082	0.349
07/25/10	0.086	0.082	0.349
07/26/10	0.086	0.081	0.347
07/27/10	0.085	0.080	0.343
07/28/10	0.085	0.080	0.339

07/29/10	0.085	0.080	0.337
07/30/10	0.085	0.079	0.337
07/31/10	0.084	0.079	0.339
08/01/10	0.084	0.079	0.342
08/02/10	0.084	0.079	0.348
08/03/10	0.084	0.079	0.351
08/04/10	0.083	0.079	0.350
08/05/10	0.082	0.079	0.353
08/06/10	0.082	0.079	0.358
08/07/10	0.082	0.079	0.360
08/08/10	0.083	0.079	0.359
08/09/10	0.084	0.079	0.355
08/10/10	0.086	0.079	0.356
08/11/10	0.087	0.079	0.358
08/12/10	0.087	0.079	0.359
08/13/10	0.088	0.079	0.358
08/14/10	0.089	0.080	0.358
08/15/10	0.091	0.081	0.362
08/16/10	0.092	0.081	0.367
08/17/10	0.092	0.082	0.371
08/18/10	0.093	0.084	0.371
08/19/10	0.093	0.085	0.368
08/20/10	0.093	0.086	0.365
08/21/10	0.093	0.086	0.363
08/22/10	0.093	0.087	0.364
08/23/10	0.093	0.087	0.365
08/24/10	0.094	0.087	0.365
08/25/10	0.094	0.087	0.363
08/26/10	0.095	0.088	0.365
08/27/10	0.094	0.088	0.364
08/28/10	0.094	0.088	0.364

08/29/10	0.094	0.088	0.365
08/30/10	0.094	0.089	0.365
08/31/10	0.094	0.089	0.365
09/01/10	0.093	0.089	0.365
09/02/10	0.093	0.090	0.365
09/03/10	0.094	0.090	0.365
09/04/10	0.094	0.090	0.365
09/05/10	0.094	0.090	0.365
09/06/10	0.093	0.090	0.365
09/07/10	0.092	0.090	0.365
09/08/10	0.091	0.091	0.365
09/09/10	0.089	0.091	0.358
09/10/10	0.089	0.091	0.354
09/11/10	0.089	0.090	0.350
09/12/10	0.088	0.090	0.344
09/13/10	0.087	0.089	0.334
09/14/10	0.085	0.088	0.329
09/15/10	0.084	0.087	0.325
09/16/10	0.084	0.087	0.329
09/17/10	0.084	0.086	0.330
09/18/10	0.084	0.085	0.328
09/19/10	0.084	0.084	0.327
09/20/10	0.084	0.083	0.323
09/21/10	0.084	0.083	0.319
09/22/10	0.083	0.083	0.316
09/23/10	0.083	0.082	0.315
09/24/10	0.083	0.082	0.314
09/25/10	0.083	0.081	0.311
09/26/10	0.083	0.081	0.312
09/27/10	0.083	0.081	0.315
09/28/10	0.084	0.080	0.318

09/29/10	0.083	0.080	0.318
09/30/10	0.084	0.080	0.317
10/01/10	0.084	0.080	0.315
10/02/10	0.084	0.079	0.310
10/03/10	0.084	0.079	0.308
10/04/10	0.084	0.079	0.307
10/05/10	0.085	0.079	0.307
10/06/10	0.085	0.079	0.298
10/07/10	0.086	0.079	0.299
10/08/10	0.087	0.079	0.299
10/09/10	0.088	0.078	0.307
10/10/10	0.088	0.078	0.311
10/11/10	0.088	0.078	0.318
10/12/10	0.088	0.078	0.328
10/13/10	0.088	0.079	0.337
10/14/10	0.088	0.079	0.345
10/15/10	0.089	0.080	0.351
10/16/10	0.089	0.080	0.350
10/17/10	0.089	0.081	0.353
10/18/10	0.090	0.082	0.360
10/19/10	0.090	0.083	0.366
10/20/10	0.090	0.083	0.371
10/21/10	0.091	0.083	0.375
10/22/10	0.092	0.083	0.379
10/23/10	0.091	0.084	0.381
10/24/10	0.092	0.084	0.382
10/25/10	0.092	0.085	0.383
10/26/10	0.093	0.086	0.382
10/27/10	0.093	0.086	0.382
10/28/10	0.094	0.087	0.382
10/29/10	0.094	0.088	0.384

10/30/10	0.094	0.088	0.387
10/31/10	0.095	0.092	0.389
11/01/10	0.095	0.095	0.396
11/02/10	0.094	0.096	0.400
11/03/10	0.094	0.096	0.403
11/04/10	0.093	0.096	0.396
11/05/10	0.094	0.097	0.401
11/06/10	0.093	0.097	0.403
11/07/10	0.093	0.097	0.404
11/08/10	0.093	0.097	0.405
11/09/10	0.093	0.097	0.405
11/10/10	0.093	0.098	0.405
11/11/10	0.093	0.098	0.406
11/12/10	0.097	0.102	0.410
11/13/10	0.100	0.103	0.408
11/14/10	0.100	0.103	0.407
11/15/10	0.100	0.102	0.406
11/16/10	0.099	0.102	0.403
11/17/10	0.099	0.101	0.400
11/18/10	0.098	0.100	0.399
11/19/10	0.098	0.100	0.399
11/20/10	0.097	0.099	0.398
11/21/10	0.096	0.098	0.398
11/22/10	0.096	0.098	0.399
11/23/10	0.096	0.097	0.401
11/24/10	0.095	0.097	0.404
11/25/10	0.094	0.096	0.404
11/26/10	0.094	0.096	0.403
11/27/10	0.092	0.095	0.404
11/28/10	0.091	0.095	0.404
11/29/10	0.091	0.095	0.404

11/30/10	0.091	0.092	0.404
12/01/10	0.091	0.088	0.402
12/02/10	0.091	0.088	0.403
12/03/10	0.090	0.088	0.407
12/04/10	0.088	0.089	0.419
12/05/10	0.089	0.089	0.426
12/06/10	0.089	0.089	0.426
12/07/10	0.088	0.089	0.428
12/08/10	0.087	0.088	0.430
12/09/10	0.086	0.088	0.430
12/10/10	0.085	0.088	0.427
12/11/10	0.084	0.087	0.427
12/12/10	0.084	0.083	0.425
12/13/10	0.083	0.081	0.425
12/14/10	0.083	0.081	0.426
12/15/10	0.078	0.082	0.427
12/16/10	0.074	0.082	0.429
12/17/10	0.073	0.082	0.431
12/18/10	0.072	0.083	0.429
12/19/10	0.072	0.083	0.428
12/20/10	0.071	0.083	0.429
12/21/10	0.070	0.082	0.428
12/22/10	0.070	0.082	0.427
12/23/10	0.069	0.082	0.426
12/24/10	0.070	0.082	0.424
12/25/10	0.070	0.082	0.426
12/26/10	0.070	0.083	0.427
12/27/10	0.070	0.083	0.425
12/28/10	0.070	0.084	0.420
12/29/10	0.070	0.083	0.414
12/30/10	0.070	0.082	0.410

12/31/10	0.071	0.082	0.404

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for FirstEnergy Generation at the Sammis Plant, CSA & CSB.

PARTICULATE EMISSIONS
CSA Results

Run #	Description	Date	lb/dscf	lbs/hr	lb/mmBtu
1	Method 5	9-5-13	8.51E-07	94.33	0.012
2	Method 5	9-5-13	6.28E-07	69.29	0.009
3	Method 5	9-5-13	8.48E-07	93.45	0.012
AVG.			7.76E-07	85.69	0.011

CSB Results

Run #	Description	Date	lb/dscf	lbs/hr	lb/mmBtu
1	Method 5	9-5-13	7.31E-07	81.42	0.010
2	Method 5	9-5-13	7.50E-07	82.77	0.011
3	Method 5	9-5-13	8.27E-07	91.06	0.012
AVG.			7.69E-07	85.08	0.011

The complete results can be found on the computer printouts following.

Removal Efficiency

Run Number	1	2	3	Average
Unit 1 Potential SO2 Emissions (Calculated				
SO2 (lb/hr)	60261	62934	65229	62808
SO2 (lb/MMBtu)	5.852	5.974	6.379	6.068
Unit 1 SO2 Emissions Actual (CEMS)				
Unit 1 A Stack Measured Emissions				
SO2 (lb/hr)	306.3	266.1	248.8	273.7
SO2 (lb/MMBtu)	0.0786	0.0698	0.0655	0.0713
Unit 1 B Stack Measured Emissions				
SO2 (lb/hr)	564.2	536.1	513.0	537.8
SO2 (lb/MMBtu)	0.139	0.129	0.122	0.130
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	870.6	802.2	761.8	811.5
SO2 (lb/MMBtu)	0.109	0.099	0.094	0.101
Unit 1 SO2 Removal Efficiency				
RE (based on lb/hr)	99	99	99	99
RE (based on lb/MMBtu)	98	98	99	98

Removal Efficiency

Run Number	1	2	3	Average
Unit 2 Potential SO2 Emissions (Calculated				
SO2 (lb/hr)	70385	68922	70350	69885
SO2 (lb/MMBtu)	6.789	6.598	6.791	6.726
Unit 2 SO2 Emissions Actual (CEMS)				
Unit 2 A Stack Measured Emissions				
SO2 (lb/hr)	233.3	224.3	220.6	226.1
SO2 (lb/MMBtu)	0.062	0.065	0.064	0.063
Unit 2 B Stack Measured Emissions				
SO2 (lb/hr)	285.2	280.2	310.5	291.9
SO2 (lb/MMBtu)	0.067	0.066	0.071	0.068
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	518.5	504.5	531.1	518.0
SO2 (lb/MMBtu)	0.064	0.065	0.067	0.066
Unit 2 SO2 Removal Efficiency				
RE (based on lb/hr)	99	99	99	99
RE (based on lb/MMBtu)	99	99	99	99

Removal Efficiency

Run Number	1	2	3	Average
Unit 3 Potential SO2 Emissions (Calculated				
SO2 (lb/hr)	67392	61284	62999	63892
SO2 (lb/MMBtu)	6.296	5.871	5.826	5.998
Unit 3 SO2 Emissions Actual (CEMS)				
Unit 3 A Stack Measured Emissions				
SO2 (lb/hr)	1114.8	1168.8	1155.9	1146.5
SO2 (lb/MMBtu)	0.299	0.308	0.309	0.305
Unit 3 B Stack Measured Emissions				
SO2 (lb/hr)	1184.8	1250.4	1237.3	1224.2
SO2 (lb/MMBtu)	0.304	0.315	0.318	0.312
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	2299.6	2419.2	2393.2	2370.7
SO2 (lb/MMBtu)	0.301	0.311	0.313	0.309
Unit 3 SO2 Removal Efficiency				
RE (based on lb/hr)	97	96	96	96
RE (based on lb/MMBtu)	95	95	95	95